BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahanka Zone, Electrical Division

Name of Work:-Detailed Estime for Providing and Fixing of LED Street Lights Ward No-09 in Byatarayanapura Division.

Budget Head : P3110-14th Finance Grant works

Ward No. 09 Estimate No:- 06/2017-18 For Rs. **1500000.00**

Sl No	SR Page & SL No	Description Of Work	Qty	Rate	Unit	Amount
	KPWD (Ele) S.R.2014-15					
1	26/4.35.3	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>120lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI	6	18720.00	each	112320.00
2	108 /17.1.2	Supplying & fixing of 32 mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 or rail or RCC pole/wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires complete. Using 32mm dia G.I pipe	6	893.00	Each	5358.00
3	12/2.12.1	Wiring for lighting / power circuit using one of pvc insulated 1100v grade stranded aluminum unsheathed wire single core cable in open or concealed system of wiring as per IS - 694 : 19904sq mm	30	7.50	Per Mtr	225.00
4	56/7.6.4	Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A.2 X 25 + 1 X 25 SQ.MM	175	143.00	Per Mtr	25025.00
5	Bes SR	Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR	175	10.30	Per Mtr	1802.50
6	55/7.4.5	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable. 3.5 core 25 sqmm	200	165.00	Per Mtr	33000.00
7	61/7.8.2	Labour charges for laying of 1.1 KV class UG cable when supplied agency in existing trench Gl pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct. b)25sqmm to 75 sqmm	200	16.00	Per Mtr	3200.00

8	2/1.1.3	Open Conduit Systeme: Supplying heavy gauge PVC conditpipe,,,,,,,,,, dia confirming to IS 2509 with suitable size bends,junction boxes, adhesibve paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or plug incase of brick walls and cement plastering damaged portionusing heavy gauge saddles at an interval of 700mm using NF screws.c)32mm dia 2.5mm thick	135	100.00	Per Mtr	13500.00
9	49 /6.39.2	Supplying and fixing angle iron frame work fabricated out of M.S angle iron... and M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)50X50X6 mm	25	263.00	mtr	6575.00
10	64/7.21.7	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.25 sqmm Long Barrel	90	20.59	each	1853.10
11	7.22.3	Supplying and running GI/Copper conductor for grounding and (along with other wires in conduit system of wiring) using necessary suitable size clamps, nails, guttas/spacers etc. GI Wire 8 SWG	90	19.50	mtrs	1755.00
12	BESCOM SR 16-17/2.34	Supplaying of Spiral Earth Electrode	25	207.00	Nos	5175.00
13	BESCOM SR 16-17/xxi	Labour charges for Spiral Earth Electrode	25	55.00	Nos	1375.00
14	AR	**monitoring system** Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various	25	51500.00	Nos	1287500.00
		Mislenious Charges				1336.40
		Total Rs				**1500000.00**

CERTIFICATE :-

1. The place was inspected and the work is essential.
2. The provision made in the estimate are adequate and necessary and the work comes in the BBMP limit and is legitimate Charges on the BBMP funds.
3. The estimate is based on KPWD (Ele) S.R.2014-15 , BESCOM Sr 16-17 and Approved Rates

T.N. Bandy

Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
Sub-Division No.
Bruhat Bangalore Mahanagara Palike

Administrative Sanction for Rs. 15.00 Lakhs
Rupees. Fifteen Lakhs only
is accorded under head P 3110 14th Finance Commissioner Grant works
Registered as EE No. EE/ELE/Y2/AS/06/17-18 Subject to conditions contained in enclosed memo Dt 21.8.17
No. PWD 58 and 59 / S/No 06/2017-18

Executive Engineer

EXECUTIVE ENGINEER (ELEC)
YELAHANKA DIVISION
BRUHAT BANGALORE MAHANAGARA PALIKE

TECHNICALLY SANCTIONED FOR Rs. 15.00 Lakhs
Rupees Fifteen Lakhs only
Under P-3110 · 14th Finance Commissioner Grant works
Registered as EE ( ) No. PWD 80 and 81 9 9
Subject to conditions contained in enclosed memo EE ( ) No. EE/ELE/Y2/AS/06/17-18
Dt. 21-08-2017 Estimate A/ Sanctioned EE/ELE/Y2/TS/04/2017 No-18
Dated 21-08-2017 Rs. 15.00 Lakhs

Executive Engineer